PATENT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Frank Colletti and Charles Rauth

Serial No.: 10/674,597

Filed: September 30, 2003

For: INSULATING FACE MASK

Examiner: Alissa Tompkins

Group Art Unit: 3765

TO: Asst. Commissioner of Patents
Washington, D.C. 20231
Attn: Board of Patent Appeals and Interferences

BRIEF ON APPEAL

Dear Sirs and Madams :

This appeal is filed in response to the final office action dated September 12, 2006, following a substantially identical final office action dated March 31, 2006 and its preceding non-final office action dated July 27, 2005.

The examiner churns the Edwards (U.S. 4,300,240) and Wilcox (U.S. 891,122) references through her own meaning of "obviousness" - built without reference, heed or application to the true 35 U.S.C. §103 "obviousness" analysis standard and *prima facie* underpinnings.

With the following legal citations and remarks, it is respectfully requested that the examiner's conclusion be reversed, and allowance entry of Claims 1-7.

TABLE OF CONTENTS

BRIEF

I. REAL PARTY IN INTEREST

After the inventors' filing of the original application, the inventors' rights to the invention were assigned on January 17, 2004 to Exo-Pro, Inc., the real party in interest.

II. RELATED APPEALS AND INTEREFERENCES

As of the date of this Brief, there are no related appeals or interference proceedings known to the appellants.

III. STATUS OF THE CLAIMS

Claims 1 - 7 stand finally rejected in the Office Action mailed on September 12, 2006. Appeal is taken on the final rejection of these claims.

IV. STATUS OF AMENDMENTS

The Examiner alluded to no amendment, and no amendments were proposed.

V. SUMMARY OF THE INVENTION

An insulating face mask of elastic material fitting securely and comfortably on the face by co-action its overall a vee-shaped contour about the wearer's forehead, gullet and rear base of the skull. Specifically, the mask member 10 shown in FIGS. 1-2 is sized and shaped to fit snugly about the forehead 11, face

12, gullet 13 and ears 14 of a user. A top perimeter 16 of the mask member 100 is proximate and contoured along the juncture where the top of the forehead meet the scalp. From each side of a midline M-L on the user's face, the top perimeter 16 extends symmetrically to a distance to just past the left ear ½ TW, and just past the right ear ½ TW, and together constitute the entire width of the top perimeter 16.

The mask member 100 also has a bottom perimeter 17 in the user's gullet area. The bottom perimeter 17 is proximately along the intersection formed between the user's neck and underside of the jaw, which from each side of a midline M-L on the user's face, and extends symmetrically to a distance to just past the left ear ½ BW, and just past the right ear ½ BW, and which together constitute the entire width of bottom perimeter 17.

The vertical height of the mask member varies and is defined by the vertical distance between the top perimeter 16 and the bottom perimeter 17. The length of the mask height is a maximum at the face midline M-L, and gradually and symmetrically decreases along the each side of the mask member in approach toward the mask member's distal width perimeter just past the ears, whereat the height is at a minimum. The gradual decrease in the mask member's height forms a taper or 'vee' shape, most pronounced in the lateral views of FIG. 2 and FIG. 4.

The mask member also has a first aperture for user's eyes allowing the user to see. In the preferred embodiment, the first aperture 31 is formed by an open 'lazy-eight' cut-out to provide, without compromising excess exposure of the user's skin to the atmosphere, maximum visual acuity and flexibility to adjust the mask material over the bridge of the nose. The preferred 'lazy-eight' cut out also readily allows and does not interfere with the option for a user to don over the face mask a supplemental streamlined eye goggle or larger eye mask.

What is more, is that the support to the mask member lent from the

forehead aspect 11 of the mask member 10 relieves pressure on the user's nose bridge that was inherent in earlier known mask designs having their topmost perimeter across the cheekbone-temple juncture. The instant invention alleviates that pressure imposed in the nose bridge by earlier designs, and provides a better overall secure fit.

The mask member has a second aperture to allow the user to breathe through the nostrils. One preferred embodiment for the second aperture, is achieved by a horizontal slit 32H in the mask member positioned below the tip of the nose and above the mouth allowing the mask member material to freely contour over the user's nose and form a pitched opening 32O in the mask member allowing the user's nostrils to directly register and pass air with the environment without impinging against the mask material.

VI. ISSUES

Are Claims 1 – 7 obvious under 35 U.S.C §103 over Wilcox (U.S. 891,122) and Edwards (U.S. 4,300,240) ?

VII. GROUPING OF CLAIMS

All claims may be grouped together in dealing with the rejection under 35 U.S.C §103 over Wilcox (U.S. 891,122) and Edwards (U.S. 4,300,240). Claim 1 is the representative claim.

VIII. ARGUMENT ON 35 U.S.C §103

Legal Standard

The obviousness ***test is not*** whether the features of a secondary reference ***may be*** bodily incorporated into the structure of a primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the **test is** what the combined teachings of the references **would have suggested to those of ordinary skill in the art.** In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

On one hand, nonobviousness cannot be established by attacking the references individually In re Merck & Co., Inc. 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986) – that is there must be **some teachings, reason, suggestion, or motivation to combine** existing elements to produce the claimed device, yet it is not necessary that the cited references or prior art specifically suggest making the combination B.F. Goodrich Co. v. Aircraft Braking Systems Corp., 72 F.3d 1577, 1583, 37 USPQ2d 1314, 1319 (Fed. Cir. 1966).

In evaluating such references it is proper to take into account not only the specific teachings of the references, but also the inferences which one skilled in the art would reasonably be expected to draw therefrom In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

The assertion of obviousness requires ***prima facie*** showing of obviousness if reasonable in light of what the prior art **substantively shows and teaches** a person of ordinary skill in that art. In rejecting claims under 35 USC §103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Qetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Only if that burden is met, does the burden of going forward with evidence or argument shift to the applicant. "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." In re Bell, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cit 1993), quoting In re Rinehart, 531 F.2d 1048, 1051,189 USPQ 143, 147 (CCPA 1976). But the mere fact that the prior ***may be*** modified in the manner suggested by the examiner ***neither makes the modification 'prima facie obvious' nor 'obvious',*** **unless the prior art suggested the desirability of the modification.** In re Fritch, 972 F.2d 1260, 1266. 2d.USPQ2d 1780,1783-84 (Fed. Cir. 1992).

If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The practitioner need do nothing more.

Discussion

The examiner correctly recognizes the factual distinctions between the applicants' invention and her references – that Edwards specifically lacks the applicants' forehead structure which snugly spans the forehead, ears and eyes of the wearer.

Page 3 of the July 27, 2005 non-final rejection lends a blank rationale that it would have been obvious "... to modify Edwards by extending the mask upward ..." over and above beyond the nose to cover "... the forehead and ears ...".

Page 3 of the March 31, 2006 and September 12, 2006 final rejections state, also unadorned, that it would have been obvious "... to use the teachings of Wilcox *to modify Edwards* in order to provide ..." a mask "...that will effectively protect the wearer's face, eyes, and nose without causing any discomfort.".

These are faulty *prima facie* §103 rejections for any one of the following reasons:

(i) there is no basis (suggestion) in the art for combining or modifying the references;

(ii) the combination or modification of the references destroys the intended function of both of them;

(iii) a modification or combination that is obvious "to try" cannot be a substitute for a teaching or suggestion to do so;

(iv) the prior art cited teaches away from the claimed invention; and

(v) as for the applicants' methods of manufacture, a known process cannot be *prima facie* obvious when, as claimed, it produces a material that is patentable.

Analysis of the cited art

The material physical properties and shape of protective masks together singularly determine the product's overall function. The goal in this art is to effectively secure the mask, with minimal discomfort, to protect the wearer's face against weather and wind conditions.

Wilcox intends and achieves a secure fit by anchoring the mask to the wearer's nose where it informs "... said nose piece serving to hold the body piece from moving about on the face of the wearer" (p. 2, lns. 3-5). Wilcox emphasizes the selection of shape and materials to effectively secure the product from to the wearer's forehead and nose. It fails to evoke thought to avoid the nose; and does not call to mind how to readily secure the product by reactivity to any other lower body part (at the gullet or otherwise) so as to avoid pressure on the nose.

By contrast, the Colletti-Rauth invention is meticulously contoured in an overall triangular Vee shape with only one material, to achieve its stability not from the nose, but rather its 'three-point' anchoring design – by applying pressure at points along the forehead, underside of the jawbone/gullet, and rear base of the skull - all strategically selected points where the mask applies its greatest compression, intentionally being where the user has the least sensitive and least pliable flesh. The shape's co-acting triangular pressure point array and material elasticity achieves the great advantage of comfortably, securely and snugly

protecting its borders, hence vastly improving protection from cold and wind conditions – while alleviating pressure on the nose.

The applicants' invention entirely circumvents using the wearer's nose as an anchoring point so as to avoid the nose's sensitive and its pliant nature. Face-protectors using the nose as an anchoring point produce discomforting forces on the wearer's nose, and tend to shift about the nose because of the nose tissue's pliant nature.

Edwards is a product supporting and securing itself at the gullet, and like Wilcox, by anchoring to the wearer's nose (col. 1, lns. 62 -67). It teaches the addition and inclusion of goggles to hold the mask in place, having the goggles' rim over the nose/upper edge of the mask (col. 5, lns. 2-5). Like Wilcox, it fails to evoke thought to avoid the nose; and does not call to mind how to readily secure the product by reactivity to any other lower body part (at the gullet or otherwise) so as to avoid pressure on the nose.

By contrast, the applicants' invention's figure-8 aperture for the eyes creates the Vee-split that spans to critically function at the forehead, gullet, and rear base of the skull –a configuration precluding the nose as a pressure/anchor point.

The imagined combined device of Wilcox and Edwards, even if capable of functioning as the applicants' invention has achieved [1], would destroy their intended function of applying pressure on the nose to hold their masks secure.

The applicants' "Vee" is a three-point anchoring design covering all exposed facial skin by applying pressure at points along the forehead, underside of the jawbone, and rear base of the skull all act in concert to produce an optimal insulating fit, derived from the anchoring points' non-pliant nature so as to diminish the mask's tendency to shift - all avoiding and intentionally acting without pressure on the nose.

These critical features allow the user to partake in more vigorous head movement activities without restriction or potential for mal-alignment, while also entirely eliminating pressure on the user's nose, and with no need for additional articles of clothing. Edwards and Wilcox each teach the opposite achieving face protection by cooperation with other clothing articles to secure their mask - Wilcox encourages a coat (p. 1, lns. 79-80), and Edwards recruits goggles (col. 1, lns. 21-22). There are no teachings, suggestions or inferences to avoid designing with the nose as an anchor point; nor do they contemplate an anchoring array strategy; nor achieve a unit-body, full face, self-supporting snug mask. This functionality is the essence of the present invention.

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1 The applicants devised a self-secured whole-face mask array functioning without stability from the wearer's nose, and with superior adherence at the outer most perimeters

Separately, and together in combination, Edwards and Wilcox do not teach, and indeed teach away from the present invention – indeed hallmarks that applicants' invention is not obvious. What is more, combining Edwards and Wilcox would destroy their intentional function of applying pressure to the nose. As enumerated (i)-(iv) *supra*, this is the true legal and rational logic why the examiner's §103 rejections are *prima facie* faulty.

The Examiner also correctly observes that Edwards and Wilcox do not disclose methods to manufacture.

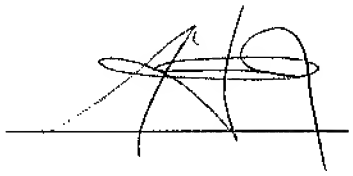
And because the applicants' invented product is not obvious, *supra*, there exists no bar to patentability for the remaining applicants' Claims 5 – 7 for manufacturing methods. It is axiomatic that a known process cannot be *prima facie* obvious when, as claimed, it produces a material that is patentable. As enumerated (v) *supra*, this is the true legal and rational logic why the examiner's §103 rejection of the applicants' manufacturing method Claims 5 – 7 are *prima facie* faulty.

IX. CONCLUSION

The rejection under 35 U.S.C. §103 should be overruled and the claims on appeal deemed allowable.

Dated: April 24, 2007

Respectfully Submitted,

By: 

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Appendix 1 to Appeal Brief
on Serial No. 10/674,597 filed on September 30, 2003

CLAIMS ON APPEAL:

1. A face mask comprising:

A mask member made of an insulating and elastic fabric which is sized and shaped to fit snugly about the forehead, face, gullet and ears of a user and having a top perimeter proximately and contoured along the juncture where the top of the forehead meets the scalp and co-linearly extending to width perimeters just past the left and right ear areas, and a height defined by the top perimeter and a bottom perimeter in the gullet area extending proximately along the intersection formed between the neck and the underside of the jaw;

Said mask member having a first aperture means formed therein to register with the eyes of the user allowing the passage of light therethrough;

Said mask member having a second aperture means formed therein positioned to register with the nostrils of the nose for passage of air therethrough;

Said mask member having a third aperture means formed therein to register with the mouth for the passage of air and sound therethrough;

Said mask member having a fourth and a fifth aperture means formed therein, one for each ear, to register with the ears for the passage of sound therethrough; and

A securing strap unitarily formed with said mask member at each left and right width perimeter of the mask member, each said strap having a top and bottom edge extending generally in-line with the respective top and bottom perimeters of the mask member to form a tapering height as the straps extend rearward about the lower hemisphere of the head and co-join in the back of the head at the base of the skull, said straps co-acting with the mask member to form a seal between the user and the mask member along the top and bottom perimeters of the mask member.

2. The face mask of claim 1 wherein the securing straps are terminally defined by distal ends that are co-joined by a set of respectively co-acting fastening means adapted to each said distal end for removeably fastening the ends thereof at the back of the head at the base of the skull.

3. The face mask of claim 1 wherein a crown member is unitarily formed with and extends upward from the top perimeter of said mask member, proportionally shaped and sized substantially to the limits of the upper crown at the superior region of the skull.

4. The face mask of claim 1 wherein said second aperture means is a diaphragm member unitarily formed with the mask member, said diaphragm member having left and right flaps open to the atmosphere in proximity to the respective left and right sides of the nose, and contoured to fit over the nose with respective left and right flap edges flaring in width along the length and beyond the tip of the nose, said flaps resting open to the atmosphere in a no-wind

condition.

5. A method of fabricating a face mask comprising:

Supplying a sheet of insulating and elastic material;

Positioning said sheet in a two-dimensional flat plane;

Supplying at least one cutting means and using the same to cut said flat sheet to form seam edges, peripheral edges and apertures of a two-dimensional and substantially symmetrical flat filet, designed to be subsequently joined along the seam edges and form a three-dimensional contoured face mask structure sized and shaped to fit snugly about the forehead, face, ears and gullet of a user having in three-dimensional structure terms,

a top perimeter proximately and contoured along the juncture where the top of the forehead meets the scalp and co-linearly extending in width just past the left and right ear areas, and a height defined by the top perimeter and a bottom perimeter in the gullet area extending proximately along the intersection formed between the neck and the underside of the jaw,

a first aperture means formed therein to register with the eyes of the user allowing the passage of light therethrough,

a second aperture means formed therein positioned to register with the nostrils of the nose for passage of air therethrough,

a third aperture means formed therein to register with the mouth for the passage of air and sound therethrough,

a fourth and a fifth aperture means formed therein, one for each ear, to

register with the ears for the passage of sound therethrough, and

a securing strap unitarily formed with said mask member at each left and right width perimeter of the mask member, each said strap having a top and bottom edge extending generally in-line with the respective top and bottom perimeters of the mask member to form a tapering height as the straps extend rearward about the lower hemisphere of the head and co-join in the back of the head at the base of the skull, said straps co-acting with the mask member to form a seal between the user and the mask member along the top and bottom perimeters of the mask member;

Manipulating said cut two-dimensional filet away from the remaining portions of the sheet;

Joining the respective seam edges of the filet to form of a three-dimensional contoured face mask; and

Supplying at least one securing means and adapting same to secure said joined seam edges.

6. The method of fabricating of claim 5, wherein said second aperture means is achieved by cutting a substantially trapezoidal flange during the cutting operations, having the narrowest aspect formed unitarily with the mask member at the juncture proximate the area corresponding to the top of the nose bridge, and flaring in width to the distal wide base edge;

joining the distal wide base edge to the mask member in a selectable and substantially horizontal plane between the second and third apertures to form a

three-dimensional diaphragm member contoured to fit over the nose with respective left and right side edges flaring in width along the length and beyond the tip of the nose and having a left and a right flap open to the atmosphere in proximity to the respective left and right sides of the nose, said flaps resting open to the atmosphere in a no-wind condition; and

supplying and adapting a securing means to secure the diaphragm member to the mask member along the joined distal wide base edge.

7. The method of fabricating of claim 5, wherein a crown member is achieved by during the cutting operation, cutting peripheral edges and seam edges to form two crown halves unitary with and extending upward from the top perimeter of said mask member, symmetrically shaped and proportionally sized to the limits of the flat area of the upper crown at the superior region of the skull;

joining the seam edges of the two crown halves to each other to form a three-dimensional crown member; and

supplying and adapting a securing means to secure the crown member halves along the joined seam edges.